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**INFLUENCE OF SAFETY MANAGEMENT PRACTICES
ON SAFETY BEHAVIOUR AMONG CONSTRUCTION
INDUSTRY IN MALAYSIA**

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UUM
Universiti Utara Malaysia

**MASTER OF SCIENCE
(OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT)
UNIVERSITI UTARA MALAYSIA**

2020

**INFLUENCE OF SAFETY MANAGEMENT PRACTICES ON SAFETY
BEHAVIOUR AMONG CONSTRUCTION INDUSTRY IN MALAYSIA**

By

VIWEGANANTHAN A/L KRISHNASAMY



**Thesis submitted to
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia**

**in fulfilment of the requirement for the Master of Science
(Occupational Safety and Health Management)**



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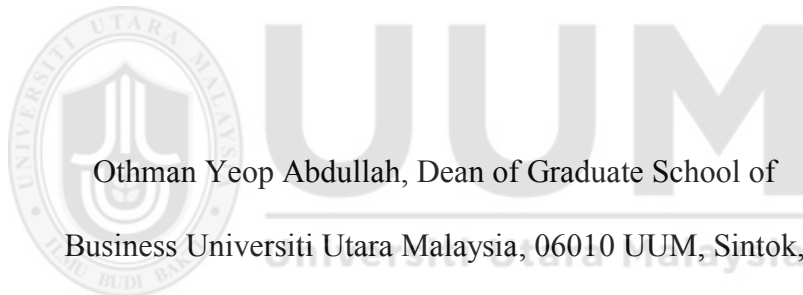
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ABSTRACT

The practice of safety management is essential in reducing the hazardous incidents in the workplace by enhancing the safety conditions within the workplace, as well as encouraging employers and employees to shift their attitudes and behaviours to place an importance on safety and health. This study investigated the perception of safety among the employees of a construction company, based on six management practices (management commitment, safety training, workers' participation, safety communication and feedback, safety rules and procedures and safety promotion policies) along with the compliance and participation in safety procedures. The results from the survey conducted found that management commitment, safety training, and safety rules and procedures have a high impact on the safety compliance. Safety training, safety rules and procedures and safety promotion policies, on the other hand, have a greater influence upon the safety participation. Safety training and safety rules and procedures had a high impact upon the safety compliance and safety participation. The findings in this study will provide a good insight for future researchers and practitioners in the field to identify problems and solutions that contribute to the safety and health at the workplace.

Keywords: management commitment, safety training, workers' participation, safety communication and feedback, safety rules and procedures, safety promotion policies, safety compliance and safety participation.

ABSTRAK

Amalan pengurusan keselamatan adalah penting dalam mengurangkan kejadian berbahaya di tempat kerja dengan meningkatkan persekitaran yang selamat di tempat kerja, serta menggalakkan majikan dan pekerja untuk mengubah sikap dan tingkah laku mereka untuk mengutamakan keselamatan dan kesihatan. Kajian ini menyiasat persepsi keselamatan di kalangan pekerja syarikat pembinaan, berdasarkan enam amalan pengurusan (komitmen pengurusan, latihan keselamatan, penyertaan pekerja, komunikasi keselamatan dan maklum balas, peraturan keselamatan dan prosedur dan dasar promosi keselamatan) bersama dengan pematuhan dan penyertaan dalam prosedur keselamatan. Keputusan dari tinjauan yang dijalankan mendapati komitmen pengurusan, latihan keselamatan, dan peraturan dan prosedur keselamatan mempunyai kesan yang tinggi terhadap pematuhan keselamatan. Di samping itu, latihan keselamatan, peraturan keselamatan dan prosedur dan dasar promosi keselamatan, mempunyai pengaruh yang lebih besar terhadap penyertaan keselamatan. Peraturan dan prosedur keselamatan dan keselamatan keselamatan mempunyai kesan yang tinggi terhadap pematuhan keselamatan dan penyertaan keselamatan. Penemuan dalam kajian ini akan memberikan wawasan yang baik untuk penyelidik dan pengamal masa depan di lapangan untuk mengenal pasti masalah dan penyelesaian yang menyumbang kepada keselamatan dan kesihatan di tempat kerja.

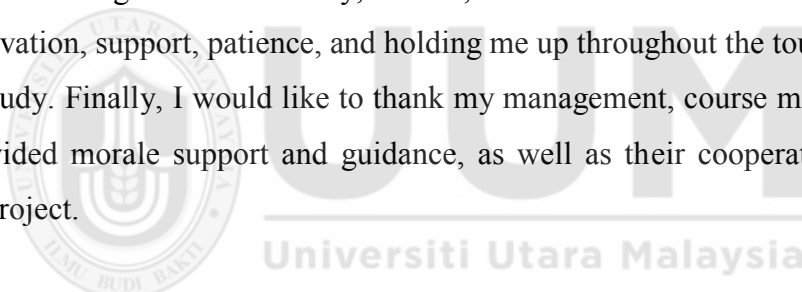
Kata kunci: komitmen pengurusan, latihan keselamatan, penyertaan pekerja, komunikasi keselamatan dan maklum balas, peraturan dan prosedur keselamatan, dasar promosi keselamatan, pematuhan keselamatan dan penyertaan keselamatan.

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LIST OF ABBREVIATION

OSH	Occupational Safety and Health
ILO	International Labour Organization
OSHA 1994	Occupational Safety and Health Act 1994
SOCISO	Social Security Organisation
S.O.P	Safe Operating Procedure
BBS	Behaviour Based Safety
FMA 1967	Factories and Machinery Act 1967
TPB	Theory of Planned Behaviour
PPE	Personal Protective Equipment
HR	Human Resources
ACM	Actively Caring Model
SME	Small Medium Enterprises
NIOSH	National Institute of Occupational Safety and Health
WHO	World Health Organization
SPSS	Statistical Package for The Social Science
JSA	Job Safety Analysis
EFA	Exploratory Factor Analysis

CHAPTER 1: INTRODUCTION

1.1 Background

The Malaysian construction industry is an example of an industry that are facing a high occupational risk, with the workers being exposed to accidents and other hazardous situations (Idris, 2017). There have been many reports and instances where the workers in the industry have been reported to face accidents that have left them with debilitating injuries or diseases, permanent injuries and even fatal injuries (Forjuoh, 2010). Pinto et. al. (2012) have shown that the statistics of the occurrences of occupational injuries are quite high within the industry . When the workers get injured, ill, or die from these hazards they face, it costs the company, whether directly or indirectly. Thus, it is necessary for a better management style to take place within this industry, as well as strict training and protocols set in terms of work safety for both employers and employees. Nowadays, all organizations in Malaysia should be exposed to Occupational Safety and Health Practices (OSHP) to avoid hazardous situations at work as they can affect business operations on a global scale (Hamid, 2015). Injuries that happen in the construction industry not only cause death, but also have a significant consequence to the construction companies. Between the years 2015 to 2017, there have been six types of accidents that are commonly identified that regularly happen on a construction site. There were 38 cases of falling in hazardous locations, 32 cases of being hit by materials at the site, 16 cases of being trapped by construction materials or machinery, 6 electrocutions, 5 cases of being buried under folded holes, and 2 cases of inhaling toxic gas (Wahab, 2017).

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APPENDIX:

QUESTIONNAIRE



Date : 12/12/2019

Dear Respondent,

I am a Postgraduate student in Universiti Utara Malaysia and carrying out a survey regarding safety behaviour, in order to fulfil the degree of Master requirement of Universiti Utara Malaysia. The objective of this research is to INFLUENCE OF SAFETY MANAGEMENT PRACTICES ON SAFETY BEHAVIOUR AMONG CONSTRUCTION INDUSTRY IN MALAYSIA.

Attached alongside this letter is a short questionnaire that addresses the element of safety performance in your organisation alongside your safety uncertainty and safety behaviour as an employee in the same organisation. I realize that your time is priceless and very precious; however, your involvement in this survey, which will need only 10 - 15 minutes of your time, will contribute to the success of this study. questionnaire general make this questionnaire a good candidate for translation into Bangladesh languages. A translation coordinator supervised their work and was available as needed to answer questions and provide guidance to workers.

There is no right or wrong answer to the statements listed in the questionnaire. Your sincerity and honesty is highly required in answering these statements. Please be rest assured that all your responses will be kept confidential and will be strictly used for the academic research purposes only.

With this I highly appreciate your cooperation and participation in this study and wish to convey my thanks in advance. If you are interested in this study and it's outcome, please contact me via email at vivek_krisnan@yahoo.com or call me at 0182554349

Thank you for your time and attention

Yours sincerely,

Tuan/Puan,

Saya adalah pelajar Sarjana dari Universiti Utara Malaysia yang sedang menjalankan satu kajian mengenai tingkah laku keselamatan, untuk memenuhi pra-syarat Sarjana dari Universiti Utara Malaysia. Objektif kajian ini adalah untuk menentukan hubungan antara amalan pengurusan keselamatan dengan tingkah laku keselamatan.

Soal selidik yang disertakan bersama-sama dengan surat ini merangkumi elemen pengurusan keselamatan di dalam organisasi anda serta ketidakpastian mengenai keselamatan dan tingkahlaku keselamatan anda sebagai pekerja di dalam organisasi. Saya sedar bahawa masa anda sangat berharga dan bermakna; walau bagaimanapun, penglibatan anda selama 10 - 15 minit bagi menjawab soal selidik ini, akan menyumbang kepada kejayaan kajian ini.

Tidak ada jawapan yang betul atau salah dalam soal selidik ini. Hanya keikhlasan dan kejujuran anda diperlukan dalam menjawab soalan. Untuk makluman, semua maklumbalas anda akan dirahsiakan dan hanya digunakan bagi tujuan penyelidikan akademik sahaja.

Dengan ini saya sangat menghargai kerjasama dan penglibatan anda dalam kajian ini dan saya dahului dengan ucapan terima kasih. Jika anda berminat dengan kajian ini dan dapatannya, sila hubungi saya melalui e-mel vivek_krisnan@yahoo.com atau menghubungi saya di talian 0182554349.

Terima kasih atas kerjasama dan perhatian anda.

Yang Benar

SECTION A: DEMOGRAPHIC INFORMATION
BAHAGIAN A: MAKLUMAT DEMOGRAFI

Please fill in blank and tick (✓) in the appropriate boxes that corresponds to your answer to each of the following questions below.

Sila isikan tempat kosong dan tandakan (✓) untuk mewakili jawapan anda pada semua soalan di bawah.

1. Job title/ *Jawatan* : _____
2. Gender/ *Jantina* : ☐ Male/ *Lelaki* ☐ Female/ *Perempuan*
3. Age/ *Umur* : _____ years/ *tahun*
4. How long have you been working?/ *Sudah berapa lama anda bekerja?* : _____ years/ *tahun*
5. How long have you been working with the present organisation?/
Sudah berapa lama anda bekerja dengan organisasi sekarang? : _____ years/ *tahun*
4. Highest Educational level/ *Tahap pendidikan tertinggi* :
☐ Secondary school/ *Sekolah Menengah* ☐ Diploma/ *Diploma*
☐ Certificate/ *Sijil* ☐ Degree/ *Ijazah*
☐ Master above/ *Master ke atas* ☐ Others/ *Lain-lain* :
.....
5. Marital status/ *Status perkahwinan* :
☐ Married/ *Berkahwin* ☐ Single/ *Bujang* ☐ Divorced/ *Berceraai*
6. Have you ever had any occupational accident ever since you started working in this organisation/
Adakah anda pernah mengalami kemalangan di tempat kerja sepanjang bekerja di organisasi ini?
☐ Yes/ *Ya* ☐ No/ *Tidak*

If yes, how many accidents have you had while working in this organisation?/
Jika ya, berapakah bilangan kemalangan yang pernah dialami sepanjang bekerja di organisasi ini?
☐ 1 - 3 ☐ 4 - 8
☐ 9 - 15 ☐ Over 15
8. Have you attended any occupational safety training?
Pernahkah anda pernah menghadiri latihan keselamatan?
☐ Yes/ *Ya* ☐ No/ *Tidak*
9. How often do you have to attend safety training?
Berapa kekerapan latihan keselamatan yang anda perlu hadiri?
☐ Every month/ *Setiap bulan* ☐ Once in three month/ *Sekali dalam tempoh tiga bulan*
☐ Once in six month/ *Sekali dalam tempoh enam bulan* ☐ Once a year/ *Sekali setahun*
☐ Not at all/ *Tiada langsung*

SECTION B: SAFETY MANAGEMENT PRACTICES**BAHAGIAN B: AMALAN PENGURUSAN KESELAMATAN**

Considering only your perception, please circle the most appropriate answer to you based on the scale below:

Dengan hanya mengambil kira pandangan anda, bulatkan jawapan yang paling tepat kepada anda berpandukan pada skala jawapan di bawah:

1	2	3	4	5
Strongly Disagree <i>Sangat Tidak Setuju</i>	Disagree <i>Tidak Setuju</i>	Moderate <i>Moderasi</i>	Agree <i>Setuju</i>	Strongly Agree <i>Sangat Setuju</i>

Question		Answer				
1	Safety is given high priority by the management. <i>Keselamatan diberikan keutamaan oleh pihak pengurusan.</i>	1	2	3	4	5
2	Safety rules and procedures are strictly followed by the management. <i>Peraturan dan prosedur keselamatan dipatuhi oleh pihak pengurusan.</i>	1	2	3	4	5
3	Corrective action is always taken when the management is told about unsafe practices. <i>Pihak pengurusan selalu akan membuat tindakan pembetulan jika dimaklumkan mengenai amalan tidak selamat.</i>	1	2	3	4	5
4	In my workplace manager or supervisors do not show interest in the safety of workers. <i>Pengurus atau penyelia di tempat kerja ini tidak menunjukkan minat terhadap keselamatan pekerja.</i>	1	2	3	4	5
5	Management considers safety to be equally important as production. <i>Pihak pengurusan mementingkan keselamatan sama seperti pengeluaran hasil.</i>	1	2	3	4	5
6	Members of the management do not attend safety meetings. <i>Ahli pihak pengurusan tidak menghadiri mesyuarat keselamatan.</i>	1	2	3	4	5
7	I feel that management is willing to compromise on safety for increasing production. <i>Saya merasakan pihak pengurusan sanggup mengabaikan aspek keselamatan demi meningkatkan pengeluaran hasil.</i>	1	2	3	4	5
8	When near-miss accidents are reported, my management acts quickly to solve the problems. <i>Pihak pengurusan bertindak pantas untuk menyelesaikan masalah berpunca dari kejadian hampir kemalangan yang telah dilaporkan.</i>	1	2	3	4	5
9	My company provides sufficient personal protective equipment for the workers. <i>Pihak pengurusan menyediakan peralatan perlindungan keselamatan secukupnya untuk para pekerja.</i>	1	2	3	4	5
10	My company gives comprehensive training to the employees in workplace health and safety issues. <i>Pihak pengurusan memberi latihan kesihatan dan keselamatan yang komprehensif untuk pekerja di tempat kerja.</i>	1	2	3	4	5
11	Newly recruits are trained adequately to learn safety rules and procedures. <i>Pekerja baru diberikan latihan secukupnya mengenai peraturan dan prosedur keselamatan.</i>	1	2	3	4	5

	Question	Answer				
12	Safety issues are given high priority in training programmes. <i>Isu keselamatan diberikan keutamaan dalam program-program latihan</i>	1	2	3	4	5
13	I am not adequately trained to respond to emergency situations in my workplace. <i>Saya tidak diberikan latihan secukupnya untuk bertindak balas terhadap situasi kecemasan di tempat kerja</i>	1	2	3	4	5
14	Management encourages the workers to attend safety training programmes. <i>Pihak pengurusan menggalakkan pekerja untuk menyertai latihan-latihan keselamatan.</i>	1	2	3	4	5
15	Safety training given to me is adequate to enable to me to assess hazards in workplace. <i>Latihan keselamatan yang diberikan kepada saya adalah mencukupi untuk membolehkan saya menilai bahaya/hazad di tempat kerja.</i>	1	2	3	4	5
16	Management always welcomes opinion from employees before making final decisions on safety related matters. <i>Pihak pengurusan sentiasa mengalu-alukan pendapat pekerja sebelum membuat keputusan akhir mengenai hal-hal berkaitan keselamatan</i>	1	2	3	4	5
17	My company has safety committees consisting of representatives of management and employees. <i>Jawatankuasa keselamatan di syarikat saya terdiri daripada wakil pihak pengurusan dan wakil pihak pekerja</i>	1	2	3	4	5
18	Management promotes employees involvement in safety related matters. <i>Pihak pengurusan menggalakkan penglibatan pekerja dalam hal-hal keselamatan.</i>	1	2	3	4	5
19	Management consults with employees regularly about workplace health and safety issues. <i>Pihak pengurusan sering merujuk kepada pekerja mengenai isu kesihatan dan keselamatan di tempat kerja</i>	1	2	3	4	5
20	Employees do not sincerely participate in identifying safety problems. <i>Pekerja tidak ikhlas dalam melibatkan diri untuk mengenalpasti masalah keselamatan.</i>	1	2	3	4	5
21	My company doesn't have a hazard reporting system where employees can communicate hazard information before incidents occur. <i>Syarikat saya tidak mempunyai sistem laporan bahaya/hazad untuk membolehkan pekerja menyampaikan maklumat punca kemalangan sebelum ia berlaku.</i>	1	2	3	4	5
22	Management operates an open door policy on safety issues. <i>Pengurusan mengamalkan dasar keterbukaan mengenai isu-isu keselamatan.</i>	1	2	3	4	5
23	There is sufficient opportunity to discuss and deal with safety issues in meetings. <i>Terdapat peluang yang secukupnya bagi membincangkan dan menangani isu-isu keselamatan di dalam mesyuarat.</i>	1	2	3	4	5
24	The target and goals for safety performance in my organization are not clear to the workers. <i>Sasaran dan matlamat prestasi keselamatan di organisasi ini adalah tidak jelas kepada para pekerja.</i>	1	2	3	4	5

	Question	Answer				
25	There is open communications about safety issues in this workplace. <i>Terdapat komunikasi terbuka mengenai isu keselamatan di tempat kerja.</i>	1	2	3	4	5
26	The safety rules and procedures followed in my company are sufficient to prevent incidents occurring. <i>Peraturan dan prosedur keselamatan di organisasi ini adalah cukup untuk mencegah berlakunya kemalangan.</i>	1	2	3	4	5
27	The facilities in the safety department are not adequate to meet the needs of my organization. <i>Fasiliti di jabatan keselamatan tidak mencukupi untuk memenuhi keperluan organisasi.</i>	1	2	3	4	5
28	My supervisors and managers always try to enforce safe working procedures. <i>Penyelia dan pengurus saya sentiasa cuba untuk menguatkuasakan prosedur kerja yang selamat.</i>	1	2	3	4	5
29	Safety inspections are carried out regularly. <i>Pemeriksaan keselamatan kerap dijalankan.</i>	1	2	3	4	5
30	The safety procedures and practices in this organization are useful and effective. <i>Prosedur dan amalan keselamatan dalam organisasi ini adalah berguna dan berkesan.</i>	1	2	3	4	5
31	In my company safe conduct is considered as a positive factor for job promotions. <i>Dalam syarikat ini, amalan keselamatan adalah faktor positif yang boleh menyumbang kepada kenaikan pangkat.</i>	1	2	3	4	5
32	In my company employees are rewarded for reporting safety hazards (thanked, cash or other rewards, recognition in newsletter, etc.). <i>Dalam syarikat ini, pekerja diberikan ganjaran kerana melaporkan bahaya/hazad keselamatan (ucapan terima kasih, imbuhan wang atau penghargaan dalam bulletin, dll)</i>	1	2	3	4	5
33	In my company safety week celebration and other safety promotional activities arranged by the management are very effective in creating safety awareness among the workers. <i>Dalam syarikat ini, minggu keselamatan dan lain-lain aktiviti promosi keselamatan yang dianjurkan oleh pihak pengurusan adalah berkesan untuk mewujudkan kesedaran keselamatan di tempat kerja.</i>	1	2	3	4	5
34	There exists very healthy competition among the employees to find out and report unsafe condition and acts. <i>Wujud persaingan yang sihat dalam kalangan pekerja untuk melaporkan keadaan dan tingkahlaku yang tidak selamat</i>	1	2	3	4	5
35	Our supervisor becomes very unhappy and angry when employees find out and report unsafe conditions and acts in our department. <i>Penyelia kami tidak suka dan marah jika pekerja mendapat tahu dan melaporkan keadaan dan tingkahlaku tidak selamat yang berlaku di bahagian kami.</i>	1	2	3	4	5

SECTION C: INDIVIDUAL RESILIENCE

BAHAGIAN C: KETAHANAN INDIVIDU

Considering only your perception, please circle the most appropriate answer to you based on the scale below:

Dengan hanya mengambil kira pandangan anda, bulatkan jawapan yang paling tepat kepada anda berpandukan pada skala jawapan di bawah:

1 Strongly Disagree <i>Sangat Tidak Setuju</i>	2 Disagree <i>Tidak Setuju</i>	3 Moderate <i>Moderasi</i>	4 Agree <i>Setuju</i>	5 Strongly Agree <i>Sangat Setuju</i>
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Question		Answer				
1	<i>It is so easy for me to stay focused and accomplish my goals. Saya mudah untuk sentiasa fokus dan mencapai matlamat saya.</i>	1	2	3	4	5
2	<i>I am confident that I could deal efficiently with unexpected events Saya yakin bahawa saya mampu menangani sebarang perkara yang tidak dijangka dengan berkesan.</i>	1	2	3	4	5
3	<i>I remain calm when facing difficulties because I can rely on my coping abilities. Saya sentiasa tenang dalam menghadapi masalah kerana saya boleh bergantung kepada keupayaan saya dalam mengatasi masalah.</i>	1	2	3	4	5
4	<i>When confronted with a problem, I can usually find several solutions Selalunya saya boleh mencari beberapa penyelesaian apabila menghadapi sebarang masalah.</i>	1	2	3	4	5
5	<i>I can work with stress. Saya boleh menangani tekanan.</i>	1	2	3	4	5
6	<i>I can focus and think clearly when I am under pressure. Saya boleh fokus dan berfikir dengan jelas apabila saya berada dalam keadaan tertekan.</i>	1	2	3	4	5

-THANK YOU/ TERIMA KASIH -

SECTION D

Dependent Variables	Items	Source
Safety Compliance	<ol style="list-style-type: none"> 1. <i>I carry out work in a safe manner.</i> 2. <i>I use all necessary safety equipment to do my job.</i> 3. <i>I use the correct safety procedures for carrying out my job.</i> 4. <i>I ensure highest level of safety when I carry out my job</i> 	Griffin and Neal (2000)
Safety Participation	<ol style="list-style-type: none"> 1. <i>I put in extra effort to improve the safety of workplace.</i> 2. <i>I help my co-works when they are working under risky or hazardous conditions.</i> 3. <i>I voluntarily carry out tasks or activities that help improve work place safety.</i> 	Griffin and Neal (2000)

No.	Statements/Pernyataan					
1	I carry out work in a safe manner. <i>Saya melaksanakan kerja saya dengan cara yang selamat.</i>	1	2	3	4	5
2	I use all necessary safety equipment to do my job. <i>Saya menggunakan semua peralatan keselamatan yang sesuai untuk melakukan kerja saya.</i>	1	2	3	4	5
3	I use the correct safety procedures for carrying out my job. <i>Saya menggunakan prosedur keselamatan yang betul ketika menjalankan kerja saya.</i>	1	2	3	4	5
4	I ensure highest level of safety when I carry out my job. <i>Saya memastikan tahap keselamatan paling tinggi apabila saya melaksanakan tugas saya.</i>	1	2	3	4	5
5	I put in extra effort to improve the safety of workplace. <i>Saya membuat usaha tambahan untuk membaiki keselamatan di tempat kerja.</i>	1	2	3	4	5
6	I help my co-works when they are working under risky or hazardous conditions. <i>Saya membantu rakan-rakan sekerja ketika mereka melakukan tugas yang berisiko atau merbahaya.</i>	1	2	3	4	5
7	I voluntarily carry out tasks or activities that help improve work place safety. <i>Saya membantu menjalankan tugas atau aktiviti-aktiviti untuk membaiki keselamatan di tempat kerja secara sukarela.</i>	1	2	3	4	5